

## ABSTRACT

The invention provides a method of reducing the damage done by reactive oxygen species (ROS) in an animal. The invention also provides a method of reducing the concentration of a metal in an animal. These methods comprise administering to the animal an effective amount of a metal-binding compound as further described in the application. The invention further provides a method of reducing the damage done by ROS in a tissue or an organ that has been removed from an animal. This method comprising contacting the tissue or organ with a solution containing an effective amount of a metal-binding compound of the invention. The invention further provides novel metal-binding compounds, pharmaceutical compositions comprising the metal-binding compounds, and kits comprising a container holding a metal-binding compound of the invention.

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